## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1.-11. (Canceled).

12. (Currently Amended) A process for producing a low polarization mode dispersion optical fiber, comprising the steps of

drawing an optical fiber from a glass preform; and

imparting to the optical fiber, during drawing, a spin about its axis with inversions of the spin direction, the number of the inversions in a length of fiber of 20 m being at most two, the spin being imparted according to a bidirectional spin function including zones of substantially constant amplitude followed by zones of transition where the inversions take place, a length of each transition zone being less than 20% of a length of the zone of substantially constant amplitude preceding it.

- 13. (Canceled).
- 14. (Currently Amended) The process according to claim 12 or 13, wherein the spin is imparted according to a bi-directional and non-periodic spin function.
  - 15. (Canceled).

- 16. (Currently Amended) The process according to claim [[13]] 12, wherein the extension length of each of the transition zones is lower less than 10% of the extension length of the zone of substantially constant amplitude preceding it.
- 17. (Previously Presented) The process according to claim 12, wherein the number of inversions of the direction of spin in a length of fiber of 25 m is at most two.
- 18. (Currently Amended) The process according to claim [[13]] 12, wherein the peak amplitude of the bi-directional spin function is 2 turns/m to 10 turns/m.
- 19. (Currently Amended) The process according to claim [[13]] <u>12</u>, wherein the peak amplitude of the bi-directional spin function is between 2 turns/m to 5 turns/m.
- 20. (Previously Presented) The process according to claim 12, wherein the distance between two consecutive inversions is at most 15 m.
  - 21. (Canceled).
- 22. (Currently Amended) The process according to claim [[13]] 12, wherein the bi-directional spin function is trapezoidal.